The impact of small water games on the level of aggressive behavior and social withdrawal in children with autism

*Dr/ Heba Tallah Ali Abdelazim Ahmed Rashwan

Introduction and research problem

The issue of disability and the care of the disabled represents a noble humanitarian and civilized principle that emphasizes the need to respect the rights of the disabled and to provide them with the opportunity to integrate into society.

The care of these groups is urgent, necessitated by social and humanitarian necessity, where not only do these individuals have the right to be cared for and cared for, but also their right to an active role in society.

Autistic disorders are one of the most difficult problems for a child. Autism is not a single disorder, but a collective name for a group of disorders under a single name called Autistic disorder Spectrum, an evolutionary disorder (i.e., during the first three years of life) Human) and lasts a lifetime.

For a variety of aspects and symptoms, the diagnosis of a child's autism is actually a complex process, requiring the intervention of many competent specialists. (55:26) (74:21)

Symptoms of autism vary, and it is rare to find two children that are very similar in symptoms due to the multiplicity and variety of factors that cause autism disability. (44.41: 13)

It is also a state of self-containment that leads to major disorders in the child's social, educational and family life as well as affects many aspects of growth, which is the result of neurological disorders affecting a group of areas of intellectual and sensory growth.
The Autism Society of America notes that the Autistic Child suffers from poor verbal and nonverbal communication and poor social communication as they lack the ability to respond to audiovisual stimuli, which are an essential part of overcoming language difficulties. (17:16) (57:18)

The autistic child also shows an inability to translate his impressions of his environment and communicate with the others and get confused when he undergoes a new cognitive experience, so he needs a stable environment where playing is a basic ground for adjusting his behavior and developing his connection with his surroundings. (227: 15) 35)

Many scholars, including Omar Khalil (2001), Adel Abdullah (2004), and Muhammad Adnan (2007) have found that there is a severe lack of social relations where these children live in isolation from each other. They do not have any interest. (66:16) (31:13) (45:2 )

Social withdrawal and severe social inequalities remain a key characteristic of autistic children as well as introversion and inability to establish social relationships.

For autistic children, sport is the best way to speed up the return of the disabled person to his or her community. (52:33)

Sports play a big role in the treatment of many diseases of different ages for the healthy and the disabled, and swimming is a sport that gives an atmosphere of fun pleasure and away from the routine life complex and daily work exhausting in the physical activity is beloved to the souls, especially for children. (47:2)

The need to play in the positive impact in the social interaction, whether the individual in general or the disabled person in particular, and the opportunity to adapt to disability. (124: 2)

Adel Abdullah (2001), Hala Fouad (2004), agreed that play is the first form of communication in children with the environment in which it helps to release the emotions and internal conflicts that stress the child. The scientists use the treatment program to play with autism children, and play tools are the source of the autistic...
child's words that cannot be uttered, and the ability to play them is not nil but they are latent, as they have some special skills for mind play and imaginary play.

From the above, the researcher found the need to study this category in society and to take care of and benefit from them and turn them into a productive category that affects and is influenced by the surrounding society and individuals and by informing the researcher of previous studies (2), (3), (5), (10), (20)

The researcher learned that they did not have a study on the use of water sports in the teaching of basic skills in swimming and its impact on some psychological skills such as withdrawal behavior and social interaction as well as the level of aggressive behavior of autistic children and hence the problem of the current research in an attempt to identify the "Level of behavior Aggressive social withdrawal in children with autism.

Research goal

The aim of the research is to identify the effect of a small water games program on the level of aggressive behavior and social withdrawal in children with autism

Research hypotheses

• There are statistically significant differences between mean and post measurements of aggressive behavior in children with autism.
• There are statistically significant differences between the averages of pre and post measurements in the level of social skills children with autism research sample

Search procedures:

Research Methodology:

The researcher used the experimental approach in the design of pre-post measurement for one experimental group in order to suit the nature of the research.

Research community :

The research community includes children with autism and distressed people on the Degla social sports club, accompanied by parents from the ages of 10-13 (20) children.

The research sample:

The sample was randomly selected from autistic children (20) children, 12 children were
used as a basic group, and 8 children were selected for the exploratory study.

Table (1)

Homogeneity of the research sample in growth rates and the level of aggressive behavior and skills in the research sample (N = 20)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement unit</th>
<th>SMA</th>
<th>deviation Standard</th>
<th>Mediator</th>
<th>Torsion coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mind age</td>
<td>Year</td>
<td>7.62</td>
<td>0.24</td>
<td>7.60</td>
<td>0.65</td>
</tr>
<tr>
<td>Real age</td>
<td>Year</td>
<td>11.68</td>
<td>0.32</td>
<td>11.65</td>
<td>0.58</td>
</tr>
<tr>
<td>Height</td>
<td>M</td>
<td>128.41</td>
<td>0.87</td>
<td>128.40</td>
<td>0.52</td>
</tr>
<tr>
<td>Weight</td>
<td>Kg</td>
<td>48.51</td>
<td>0.61</td>
<td>48.50</td>
<td>0.63</td>
</tr>
<tr>
<td>Clear Aggressive behavior</td>
<td>Degree</td>
<td>59.87</td>
<td>0.15</td>
<td>59.85</td>
<td>0.98</td>
</tr>
<tr>
<td>General Aggressive behavior</td>
<td>Degree</td>
<td>38.14</td>
<td>0.52</td>
<td>38.10</td>
<td>0.47</td>
</tr>
<tr>
<td>Anarchist behavior</td>
<td>Degree</td>
<td>24.62</td>
<td>0.47</td>
<td>24.60</td>
<td>0.62</td>
</tr>
<tr>
<td>Ability to adjust self</td>
<td>Degree</td>
<td>7.25</td>
<td>0.98</td>
<td>7.20</td>
<td>0.87</td>
</tr>
<tr>
<td>Measurement in general</td>
<td>Degree</td>
<td>129.88</td>
<td>8.18</td>
<td>129.80</td>
<td>0.62</td>
</tr>
<tr>
<td>Social skills</td>
<td>Degree</td>
<td>24.83</td>
<td>1.77</td>
<td>24.80</td>
<td>0.11</td>
</tr>
</tbody>
</table>

It is clear from Table (1) that the torsion coefficient is limited to 0.65 to 0.98. This means that the variables achieve the mean curve, which is limited to + 3, which confirms the degree of homogeneity between the sample members as a whole.

Means of data collection

Data collection methods differ depending on the type of data to be obtained. The researcher used the following methods to suit the nature and objectives of the research:
- Access to documents (records of the club as one of the official documents)
- Scientific references and related studies.
- Expert opinion poll forms.
Psychological tests

Document Analysis (Club Records as Official Documents)

The records of the club management were used to obtain the data of the sample members represented in:
- Obtain the age of the children's sample of the research by date of birth.
- Medical records to ensure the health safety of the students sample the research.
- Test the aggressive behavior of autistic children

The researcher used a measure of aggressive behavior patterns for autistic children

Description of the meter

This measure is designed to measure the aggressive behavior of children with mental disabilities (Autism) at different ages. The scale consists of (60) words, each of which expresses a position. The trainer evaluates the scale and the answer is marked with) in front of one of the choices (Yes / Sometimes / No) (Yes = 2 degrees) (Sometimes = 1 degree) (No = 0)

Test the social interactions of autistic children.
* The measure of social interactions of children of autistic children from the age of (15:10) year prepared by Adel Abdullah (2001) and the coefficients of honesty 0.79 and stability of 0.681 on the Egyptian environment.

Description of the meter

* This scale is designed to measure the social skills of children with special needs (children of autism) Adel Abdullah (2001). At different ages, the scale consists of (31) words.

Devices and tools used in the search

The researcher used the following devices to collect data:
- Resistameter device to measure length in centimeters.
- The medical balance of weight in kilograms.
- Measuring tape for measuring distances.
- Stopwatch to calculate time.

The following tools were also used in the application of the proposed program:
* Tennis Balls
* Handballs
* Wooden Box
* Swedish Seats
* Rulers included in centimeter
* Hoops
* Metal or wooden casual
* Grain bags
* Swimming pool 60 cm
Proposed Program:

1. Setting the objectives of the program:

Based on the theoretical and related studies, a water games program has been developed for the children. The proposed program aimed to acquire the children's sample of physical abilities and psychological variables within the study. To achieve this, the researcher took into account the following aspects:

- Thrill through games in the program.
- Suitability for sample members.
- Gradient from easy to hard.
- Suitable games to achieve the objective for which it is.
- Suitable tools for sample members.

- Program Time Division:

The program was divided according to the nature of the sample of children. The program was implemented within two and a half months by 3 units per week for the unit duration (60) minutes with a total of (30) hours.

The program has been divided into five phases:

- Stage 1 (getting used to water and removing the fear factor)

The aim of this stage is to establish how to communicate with the child to the ability of motor performance where the researcher found it very difficult to start the application of the program because:

A - Fear of the child from the water.
B - Not adapt the child with the researcher.
C - The child does not respond to the performance of any movement initially required.
D - The child is not familiar with the terms used.
E - Distraction of the child and inability to concentrate due to multiple stimuli.

This phase was implemented during the first three weeks of the program with (9) sessions.

- Stage II (breathing and opening eyes)

This phase was implemented during (3) sessions.

- Phase III (buoyancy and sliding)

This phase was implemented during (6) sessions.

- Stage 4 (motor mobility in water)

This phase was implemented during (6) sessions.

- Stage 5 (standing in water)

This phase was implemented during (6) sessions.
View, interpret and discuss the results:

**Table (2)**

"The significance of the differences between the pre and post measurement in the level of aggressive behavior Autistic Children" N = 12

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pre measurement</th>
<th>Post measurement</th>
<th>Difference between the two averages</th>
<th>Improvement rate</th>
<th>T value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear Aggressive behavior</td>
<td>59.87 0.15</td>
<td>35.18 8.15</td>
<td>24.69</td>
<td>70.18%</td>
<td>7.85</td>
<td>Significant</td>
</tr>
<tr>
<td>General Aggressive behavior</td>
<td>38.14 0.52</td>
<td>30.14 1.36</td>
<td>8.00</td>
<td>25.69%</td>
<td>4.62</td>
<td>Significant</td>
</tr>
<tr>
<td>Anarchist behavior</td>
<td>24.62 0.47</td>
<td>15.84 2.18</td>
<td>8.78</td>
<td>55.42%</td>
<td>4.68</td>
<td>Significant</td>
</tr>
<tr>
<td>Ability to adjust self</td>
<td>7.25 0.98</td>
<td>4.20 0.61</td>
<td>3.05</td>
<td>72.61%</td>
<td>4.11</td>
<td>Significant</td>
</tr>
<tr>
<td>Measurement in general</td>
<td>129.88 8.18</td>
<td>85.36 1.64</td>
<td>44.44</td>
<td>52.06%</td>
<td>3.41</td>
<td>Significant</td>
</tr>
</tbody>
</table>

The t value of the table is at a significant level of 0.05 = 1.714

Table (2) shows that there are statistically significant differences between the averages of pre and post measurements in the level of aggressive behavior in autistic children, where the value of (T) of the table is greater than the value calculated at the level of significance (0.05)

**Table (3)**

"Significance of the differences between the pre and the post in the level of social interactions In autistic children" N = 12

<table>
<thead>
<tr>
<th>Level of significance</th>
<th>T value</th>
<th>Improvement rate</th>
<th>Difference between the two averages</th>
<th>Post measurement</th>
<th>Pre measurement</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant</td>
<td>3.88</td>
<td>18.32</td>
<td>4.55</td>
<td>0.87</td>
<td>29.38</td>
<td>Social interactions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.77</td>
<td>24.83</td>
<td></td>
</tr>
</tbody>
</table>

The t value of the table is at a significant level of 0.05 = 1.714

Table (3) shows statistically significant differences between mean and post measurements in the level
of social interactions in autistic children, where the value of (T) is greater than the value calculated at the level of significance (0.05)

Second: Interpretation and discussion of the results:

Table (2) shows statistically significant differences between the averages of the pre and post measurements in the level of aggression behavior in autistic children where the value of (T) of the table is greater than the value calculated at the level of significance (0.05). The researcher attributed the improvement to the use of water games in autistic units in autistic children.

The researcher attributed this improvement in the level and aggressive behavior to the use of the proposed water games program.

This may be due to the fact that the water games were guided by scientific guidance during the initial preparation part and the main part of the educational unit which showed its effect on reducing some behavioral disorders social skills.

As Amina Hassanein and Manar Shahin (2003) note (3), these small games take into account the renewal and change in square shape, circle, locomotive, change in the basic state from which the game starts, change in shape and direction of student movement, Or increase or decrease the number of skills which used and increase and decrease the number of balls and the number of players.

Ibrahim Mahmoud Bader (2004) 1 mentions that there are some general characteristics that characterize individuals with intellectual disabilities.

The extent of these characteristics or some of them in the mentally disabled person depends on the degree of disability and the level of training he receives.

They are well educated and have a similar understanding with their peers rather than their differences. Their basic need for play and motor efficiency are not very different. They do not show much delay in normal movement and compatibility.

The results of this study are consistent with the study of Jamal Al-Khatib, Mona Al-Hadidi (2004) (4) and Sayed Jarhi Al-Sayed (2004) (11) on the importance of using the
method of playing in improving the physical and psychological abilities of children of autism.

Table (3) shows statistically significant differences between mean and post measurements in the level of social interactions in autistic children,

Where the value of (T) was greater than the value calculated at the level of significance (0.05). The researcher attributed the improvement to the water games program whose contents have resulted in positive participation among children, which has led to a reduction in the level of aggressive behavior and improved social interactions.

The researcher attributed this improvement to the diversity and the multiplicity of exercises and games within the program, which led to the interaction of children and their integration into activities and recreational games that bring joy and the spirit of fun as well as the use of material and moral incentive within the program, which helped to attract children to participate and not isolation and reluctance to practice and interact with peers, Helping them to have successful social relationships with others.

Rabia Ibrahim (2003) pointed to the importance of providing educational, therapeutic and recreational programs for children with disabilities and the two who are working to find the appropriate methods to deal with these children, who may contribute to shaping their social behavior and social interactions and reduce their withdrawal behavior. (13: 7)

In this regard, both the Dalrymple agree that games can teach or master some social skills together or individually in the form of a small game that can overlook some points of law such as the number of players or the area of the stadium and thus help them to achieve their goal in a cooperative spirit without looking to the state of competition among children (29: 79).

The results of this study are consistent with Jamal Al-Khatib, Muna Al-Hadidi (2004) and Sayed Jarhi Al-Sayed (2004) (11) on the importance of using the method of play to improve the
physical and psychological abilities of autistic children.

Conclusions:
- The proposed aquatic program has an impact on the modus operandi of autistic children.
- The proposed small games program has a positive effect on the social interactions of children with autism.

Recommendations:
1. Conduct more scientific studies to identify the impact and application of water games on the psychological and social characteristics of this stage.
2. Conducting other studies by developing proposed programs using water games and applying them in other stages to determine the impact of water games on the physical and skill characteristics of these stages.
3. Interest in the establishment of specialization special groups in the colleges of physical education during the preparation of the new regulations to graduate specialized cadres can deal with various disabilities.

Arabic References
4. Abdullah bin Mohammed Al-Sibi (2002), "Autism and autism spectrum (its causes - symptoms - how to deal with it)", Cairo, the book house for publication.
6. Amimah Hassanein, Manar Shahin (2003): Effect of the gymnastics program on some basic motor skills and attention disorders, social interactions and withdrawal behavior of autistic child, published research, Assist Journal of Physical Education Sciences, Faculty of Physical
Education, Faculty of Physical Education for Boys.

7- Amjad Abdul Latif (2007): The Effect of the Sports Rehabilitation Program on Reducing the Level of Excessive Activity to Improve Adaptive Behavior in Parts I and II in Autistic Children, 14th International Conference of Counseling Center, Faculty of Education, Ain Shams University.

8- Berken, charmer, (2001): "Integrating physical Education to teach appropriate play skills to learners with autism, adapted physical Activity Quarterly J 11. 5, Jul.


15- Hala Fouad Kamal El-Din (2001): Designing a program to acquire the skills of social behavior of autistic children, unpublished doctoral thesis, Institute of Childhood Studies, Ain Shams University, Cairo.

17- Jamal Al-Khatib, Mona Hadidi (2004): A training program for disabled children, collection, translation and editing of the Faculty of Educational Sciences, University of Jordan, Dar Al-Fikr for Printing, Publishing and Distribution.
21- Krotee, mistune (2000): "the effect of Integrating children with autism into a physical Activity and Recreation setting" the rape tic Recreation journal, VA 27, 50.
28- Omar Khattab Khalil (2001): "Effective Methods in
the Treatment of Autism".-
Journal of Child Constraints-
Issue (9)- Al-Azhar University.
29. Qahtan Ahmad Al-Zaher
(2005): Introduction to Special
Education, Amman, Dar Wael
Publishing.
30-Raed Khalil Al-Abbadi
(2006): Autism, Arab Society
for Publishing and
Distribution, Amman, Jordan.
31- Rabia Ibrahim Hakim
(2003): "Your guide to dealing
with autism", Jeddah City,
Jeddah Newspaper, Sari
Branch, Arabic Books Section.
32- Sayed Jarhi Al- Sayed
(2004): Effectiveness of a
training program in the
development of some adaptive
behavior skills in autistic
children and reducing their
troubled behavior, unpublished
Master Thesis, Faculty of
Education, Ain Shams
University, Cairo
33- Suha Ahmed Amin
(2001): Effectiveness of a
program for the development
of linguistic communication in
some autistic children,
unpublished doctoral thesis,
Institute of Higher Studies for
Children, Ain Shams
University.
34- Zakaria Ahmed Bad Beni
(2004): "a special child
between disabilities and
syndromes" Cairo, the Arab
Thought House.
35- Zeinab Mahmoud
Choucair (2002): Services for
People with Special Needs,
Cairo, Egyptian Renaissance.